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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,857	10/06/2003	Stan Stokowski	5589-04001 P991	3197
35617	7590	12/14/2005		
DAFFER MCDANEIL LLP P.O. BOX 684908 AUSTIN, TX 78768			EXAMINER STAFIRA, MICHAEL PATRICK	
			ART UNIT 2877	PAPER NUMBER

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/679,857

Applicant(s)

STOKOWSKI ET AL.

Examiner

Michael P. Stafira

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-18, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/2/04; 2/13/04; 3/22/04; 6/05/05
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 9-17, 21, 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Lehman ('314).

#### **Claim 1**

Lehman ('314) discloses forming an aerial image (Col. 6, line 19) of the reticle using a set of exposure conditions, wherein the reticle comprises optical proximity correction features (Col. 7, lines 13-20); and detecting defects on the reticle by comparing the aerial image (Col. 6, line 19) to a reference image (Col. 6, line 20) stored in a database (Col. 13, lines 35-46), wherein the reference image is substantially optically equivalent to an image of the reticle that would be printed on a specimen by an exposure system under the set of exposure conditions (Col. 13, lines 22-26), and wherein the reference image does not include images of the optical proximity correction features (Col. 7, lines 13-20).

#### **Claim 2**

Lehman ('314) further discloses the optical proximity correction features are not imaged in the aerial image (Col. 7, lines 13-20).

**Claim 3**

The reference of Lehman ('314) further discloses the set of exposure conditions comprise exposure conditions within a process window of the exposure system (Col. 8, lines 4-16).

**Claim 4**

Lehman ('314) further discloses forming a plurality of aerial images of the reticle using different exposure conditions and determining a process window of the exposure system using the plurality of aerial images (Col. 8, lines 26-41).

**Claim 5**

Lehman ('314) further discloses altering the aerial image to simulate performance characteristics of the exposure system and the specimen (Col. 8, lines 26-41).

**Claim 9**

Lehman ('314) further discloses determining if the reticle meets qualification criteria based on the detected defects (Col. 10, lines 7-23).

**Claim 10**

Lehman ('314) further discloses a substantial portion of the defects comprises defects that would be printed onto the specimen by the exposure system using the reticle under the set of exposure conditions (Col. 8, lines 26-41)

**Claim 11**

The reference of Lehman ('314) further discloses a resist, and wherein the reference image is further substantially optically equivalent to an additional image of the reticle generated from a pattern selected to be formed in the resist using the reticle (Col. 7, lines 26-38).

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**Claim 12**

Lehman ('314) further discloses forming an aerial image (Col. 6, line 19) of the reticle, wherein the reticle comprises optical proximity correction features; and detecting defects on the reticle by comparing the aerial image (Col. 6, line 19) to a reference image (Col. 6, line 20) stored in a database (Col. 113, lines 36-46), wherein the reference image (Col. 6, line 20) does not include images of the optical proximity correction features (Col. 7, lines 14-21), and wherein the reference image comprises designations identifying different types of regions in the reference image (Col. 7, lines 21-26).

**Claim 13**

Lehman ('314) discloses an optical subsystem configured to form an aerial image (Col. 6, line 19) of the reticle using a set of exposure conditions, wherein the reticle comprises optical proximity correction features; and a processor (Fig. 1, Ref. 50) configured to detect defects on the reticle by comparing the aerial image (Col. 6, line 19) to a reference image (Col. 6, line 20) stored in a database (Col. 13, lines 36-47), wherein the reference image is substantially optically equivalent to an image of the reticle that would be printed on a specimen by an exposure system under the set of exposure conditions, and wherein the reference image does not include images of the optical proximity correction features (Col. 7, lines 14-21).

**Claim 14**

Lehman ('314) further discloses the optical proximity correction features are not imaged in the aerial image (Col. 7, lines 14-21).

**Claim 15**

The reference of Lehman ('314) further discloses the set of exposure conditions comprise exposure conditions within a process window of the exposure system (Col. 8, lines 4-16).

**Claim 16**

Lehman ('314) further discloses the optical subsystem is further configured to form a plurality of aerial images of the reticle using different exposure conditions, and wherein the processor is further configured to determine a process window of the exposure system using the plurality of aerial images (Col. 8, lines 26-41).

**Claim 17**

Lehman ('314) further discloses altering the aerial image to simulate performance characteristics of the exposure system and the specimen (Col. 8, lines 26-41).

**Claim 21**

Lehman ('314) further discloses a substantial portion of the defects comprises defects that would be printed onto the specimen by the exposure system using the reticle under the set of exposure conditions (Col. 8, lines 26-41)

**Claim 22**

The reference of Lehman ('314) further discloses a resist, and wherein the reference image is further substantially optically equivalent to an additional image of the reticle generated from a pattern selected to be formed in the resist using the reticle (Col. 7, lines 26-38).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehman ('314).

**Claim 6, 18**

Lehman ('314) discloses the claimed invention except for the detected light is reflected from the reticle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Lehman ('314) with the reflected since it was well known in the art that in reticle inspection apparatus that reflected light is used for inspection of defects on a surface, therefore increasing the sensitivity of the measured light.

***Allowable Subject Matter***

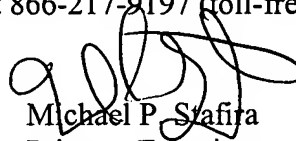
5. Claims 7, 8, 19, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael P. Stafira  
Primary Examiner  
Art Unit 2877

November 30, 2005